ENVIRONMENTAL CHEMISTS

Date of Report: June 25, 1996 Date Received: June 20, 1996

Project: 3200 Self Monitor, PO #53708 Date Samples Extracted: June 24, 1996 Date Extracts Analyzed: June 25, 1996

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE FOR CHROMIUM, COPPER, NICKEL, AND ZINC USING METHOD 6010

Samples Processed Using Method 3005A Results Reported as mg/L (ppm)

Sample ID	Chromium	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M53708	0.57	1.2	0.92	0.48
Method Blank	< 0.05	< 0.05	< 0.05	<0.05

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Project: 3200 Self Monitor, PO #53708

QUALITY ASSURANCE RESULTS FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 69948 (Duplicate)

Analyte:	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/L (ppm)	0.57	0.81	35a	0-20
Copper	mg/L (ppm)		1.5	22a	0-20
Nickel	mg/L (ppm)	0.92	1.1	18	0-20
Zinc	mg/L (ppm)	0.48	0.53	10	0-20

Laboratory Code: 69948 (Matrix Spike)

	Reporting	Spike	Sample	% Re	ecovery	Acceptance	Relative Percent
Analyte:	Units	Level	Result	MS	MSD	Criteria	Difference
Chromium	mg/L (ppm)	5	0.57	89	86	80-120	3
Copper	mg/L (ppm)	5	1.2	86	86	80-120	0
Nickel	mg/L (ppm)	10	0.92	89	87	80-120	2
Zinc	mg/L (ppm)	5	0.48	86	84	80-120	2

Laboratory Code: Spike Blank

	Reporting	Spike	% Rec	overy	Acceptance	Relative Percent
Analyte:	Units	Level	MS	MSD	Criteria	Difference
The Western						
Chromium	mg/L (ppm)	5	97	97	80-120	0
Copper	mg/L (ppm)	5	96	95	80-120	1
Nickel	mg/L (ppm)	10	96	96	80-120	0
Zinc	mg/L (ppm)	5	95	95	80-120	0

a - The sample contained particulates. The high variability is attributable to this sample type.

FRIEDMAN & BRUYA, INC. 3012 16th Avenue West Seattle, WA 98119-2029 (206) 285-8282

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SAMPLE CHAIN OF CUSTODY

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ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D Beth M. Albertson, M.S. Bradley T. Benson Kelley D. Wilt 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044

June 25, 1996

INVOICE # 96ACU0625-1 DUPLICATE COPY

Accounts Payable Alaskan Copper Works 628 South Hanford Seattle, WA 98134

RE: Project 3200 Self Monitor, PO #53708: Results of testing requested by Gerry Thompson, Project Manager for material submitted on June 20, 1996.

1 water sample analyzed for Chromium, Copper, Nickel, and Zinc using Method 6010 @ \$65 per sample \$65.00

Amount Due \$50.00

FRIEDMAN & BRUYA, INC. 3012 16th Avenue West Seattle, WA 98119-2029 (206) 285-8282

SAMPLE CHAIN OF CUSTODY

Send Report To: Company ALASKAN Address 628 Hanf	COPPER WORKS	3		Contact_	GERALD	THOMPSON			
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Dispose after 30 days Return Samples Call for Instructions									
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09/19/94

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James E. Bruya, Ph.D Beth M. Albertson, M.S. Bradley T. Benson Kelley D. Wilt 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044

June 25, 1996

Gerry Thompson, Project Manager Alaskan Copper Works 628 South Hanford Seattle, WA 98134

Dear Mr. Thompson:

Enclosed are the results from the testing of material submitted on June 20, 1996 from your 3200 Self Monitor. PO #53708 project

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Kurt Johnson Chemist

keh

Enclosures ACU0625R.DOC